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# BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREGORY BADROS, RAJAT RAINA, HONG GE, DING ZHOU, NUWAN SENARATNA, and TUDOR A. ALEXANDRESCU

Appeal 2014–007180 Application 13/095,899 Technology Center 3600

Before ANTON W. FETTING, PHILIP J. HOFFMANN, and AMEE A. SHAH, *Administrative Patent Judges*.

FETTING, Administrative Patent Judge.

# **DECISION ON APPEAL**

# STATEMENT OF THE CASE<sup>1</sup>

Gregory Badros, Rajat Raina, Hong Ge, Ding Zhou, Nuwan Senaratna, and Tudor A. Alexandrescu (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1–26, the only claims pending

<sup>&</sup>lt;sup>1</sup> Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed March 10, 2014) and Reply Brief ("Reply Br.," filed June 12, 2014), and the Examiner's Answer ("Ans.," mailed April 24, 2014) and Final Action ("Final Act.," mailed October 24, 2013).

in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellants invented a way of providing information items, including advertisements, to users of a social networking system based on the inferred temporal relevance of that information to the users.

Specification para. 1.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

- 1. A method comprising:
- [1] determining a plurality of interests for a user of a social networking system

based on an action of the user;

[2] discounting the interests

based at least in part on an amount of time since the performance of the action from which the interests were determined;

- [3] receiving a plurality of information items for display to the user of the social networking system;
- [4] determining a plurality of concepts associated with each of a plurality of information items;
- [5] matching, by a processor,

the discounted interests for the user

with

the concepts determined for each of the information items;

[6] selecting one or more of the information items to display to the user.

the selecting based at least in part on the matching of the discounted interests with the concepts;

and

[7] sending the selected information items for display to the user.

The Examiner relies upon the following prior art:

Parsons	US 2007/0214097 A1	Sept. 13, 2007
Gross	US 2009/0048928 A1	Feb. 19, 2009
Chien	US 2009/0055257 A1	Feb. 26, 2009
Iyer	US 2011/0066507 A1	Mar. 17, 2011

Claims 1–13 and 23–26 stand rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter.

Claims 1, 2, 4, 6, 8–10, 14, 15, 17, 19, 20, 23, 24, and 26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gross and Parsons.

Claims 3, 5, 7, 16, and 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gross, Parsons, and Chien.

Claims 11–13, 21, 22 and 25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gross, Parsons, and Iyer.

#### **ISSUES**

The issues of statutory subject matter turn primarily on whether the claims recite implementations of abstract ideas or just the concepts behind the abstract ideas. The issues of obviousness turn primarily on whether the art describes discounting interests based on time since a user's action.

## FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to the Prior Art

Gross

- 01. Gross is directed to advertising and search which exploit temporal aspects of documents and events. Gross, para. 10.
- 02. Gross describes automated advertising that relies upon and uses temporal information to enhance online ad auctions, advertising placement, and search engine behavior. *Id.* at para. 34.
- 03. Gross describes a ranked set being presented as desired to persons viewing aggregated news content at a conventional web page, and the content may be presented based on the relevant factors identified by Google along with the temporal ranked style. *Id.* at para. 89.
- 04. Gross describes how the age of the temporal content snippet can be used to determine a relevancy. That is, a snippet which is very old may be afforded less weight because it is not matched with other temporal content in subsequent documents. *Id.* at para. 108.

#### **Parsons**

05. Parsons is directed to techniques to analyze conversations within a conversational network. More particularly, the present invention is directed to analyzing the influence of social media

content and its publishers within a conversational network. Parsons, para. 2.

Of. Parsons describes a system that analyzes social media distributed on the Internet. A conversation-monitoring module monitors conversations in the social media. A social-analysis module analyzes content associated with a conversation for social relationships indicative of the evolution of the conversation. An influence-engine determines the influence of postings in a selected conversation. Parsons describes generating a conversation index of posts published in an online social media around trusted relationships. The influence of posts and publishers within the selected conversation is determined. *Id.* at paras. 18–19.

#### **ANALYSIS**

Claims 1–13 and 23–26 rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter

# The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent—eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent—ineligible concepts. If so, we then ask, "[w]hat else is there in the claims before us? To answer that question, . . . consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent—eligible application. [The Court] described step two of this analysis as a search for an "inventive concept"—i.e., an element or combination of elements that is "sufficient to ensure

that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."

Alice Corp., Pty. Ltd. v CLS Bank Intl, 134 S. Ct. 2347, 2355 (2014) (citations omitted) (citing Mayo Collaborative Services v. Prometheus Laboratories, Inc., 132 S. Ct. 1289 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent—ineligible concept.

While the Court in *Alice* made a direct finding as to what the claims were directed to, we find that this case's claims themselves and the Specification provide enough information to inform one as to what they are directed to.

The preamble to claim does not recite what the method is for, but the steps in claim 1 result in displaying information of interest to someone. The Specification at paragraph 1 recites that the invention relates to providing information items, including advertisements, to users of a social networking system. Thus, all this evidence shows that claim 1 is directed to displaying advertisements, i.e., advertising.

It follows from prior Supreme Court cases, and *Bilski* in particular, that the claims at issue here are directed to an abstract idea. Like the risk hedging in *Bilski*, the concept of advertising is a fundamental commercial practice long prevalent in our system of commerce. The use of advertising is also a building block of our economy. Thus, advertising, like hedging, is an "abstract idea" beyond the scope of § 101. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2356.

As in *Alice Corp. Pty. Ltd.*, we need not labor to delimit the precise contours of the "abstract ideas" category in this case. It is enough to

recognize that there is no meaningful distinction in the level of abstraction between the concept of risk hedging in *Bilski* and the concept of advertising at issue here. Both are squarely within the realm of "abstract ideas" as the Court has used that term. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2357.

The remaining claims merely describe how to determine what items to display. We conclude that the claims at issue are directed to a patent—ineligible concept.

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea "while adding the words 'apply it" is not enough for patent eligibility. Nor is limiting the use of an abstract idea "to a particular technological environment." Stating an abstract idea while adding the words "apply it with a computer" simply combines those two steps, with the same deficient result. Thus, if a patent's recitation of a computer amounts to a mere instruction to "implement[t]" an abstract idea "on . . . a computer," that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our §101 jurisprudence. Given the wholly ubiquity of computers, generic computer implementation is not generally the sort of "additional feature[e]" that provides any "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself."

Alice Corp. Pty. Ltd., 134 S. Ct. at 2358 (citations omitted).

"[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer." *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to determine interests and concepts somehow discount the value of those interests and match interests and concepts, and select and display items for display amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well—understood, routine, conventional activities previously known to the industry. In short, each step does no more than require a generic computer to perform generic computer functions.

Considered as an ordered combination, the computer components of Appellants' method add nothing that is not already present when the steps are considered separately. Viewed as a whole, Appellants' method claims simply recite the concept of selecting an ad to display as performed by a generic computer. The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. Instead, the claims at issue amount to nothing significantly more than an instruction to apply the abstract idea of advertising using some unspecified, generic computer.

Under our precedents, that is not enough to transform an abstract idea into a patent—eligible invention. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2360.

We are not persuaded by Appellants' argument that

[a]s a whole, the claimed invention is directed toward a practical application of determining and displaying relevant information items to users, at least partially by using a processor to compute scores. Since the claimed invention has a particular practical application having the real world use of providing relevant information items to users, the claimed invention is not directed to an abstract idea.

App. Br. 13. This argument is no more than contending that advertising per se is directed toward a practical application of determining and displaying relevant information items to users. That is like contending that the hedging in *Bilski* was directed to the practical application of reducing risk. The claims are devoid of specific implementation details that would avoid preemption of all possible implementations. As such, the claims are conceptual advice of a result to be achieved, rather than specific implementations for how to achieve the results.

Claims 1, 2, 4, 6, 8–10, 14, 15, 17, 19, 20, 23, 24, and 26 rejected under 35 U.S.C. § 103(a) as unpatentable over Gross and Parsons

We are persuaded by Appellants' argument that "[n]one of the references teach 'discounting the interests based at least in part on an amount of time since the performance of the action from which the interests were determined." Reply Br. 2. Appellants contend that

the features of Gross and Parsons cannot operate in combination to disclose the claim element, at least because the two claim element portions "discounting the interests based at least in part on...were determined" and "an amount of time since the performance of the action from which the interests were determined" cannot be separated. The term "based at least in part on" requires that the first portion of the element be executed based on the second portion.

*Id.* at 3 (emphasis omitted). Both references describe affording less weight to older content than newer content. To discount means essentially to lessen the afforded weight. To do so for older content is to do so based on age, or how recent or non-recent the content is. Thus to the extent Appellants argue

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the lack of both the discounting and the basis for doing so, both references explicitly describe this.

The recited basis, however, is that of the user's actions, rather than content the user now has available. The Examiner finds that

[i]t would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method taught by Gross by analyzing and discounting the recency of an interest as taught by Parsons in order to have the content be temporally ranked and relevant temporally to the user in order to optimize user interest and interaction.

Ans. 9. Although we agree with this conclusion, it is not on point. The Examiner bases the discount on recency of interest, rather than of user action. Indeed, both references discount the user's interests based on how recent the text content was originated by others, rather than the user's actions per se.

Claims 3, 5, 7, 16, and 18 rejected under 35 U.S.C. § 103(a) as unpatentable over Gross, Parsons, and Chien

These claims depend from the above claims.

Claims 11–13, 21, 22 and 25 rejected under 35 U.S.C. § 103(a) as unpatentable over Gross, Parsons, and Iyer

These claims depend from the above claims.

#### CONCLUSIONS OF LAW

The rejection of claims 1–13 and 23–26 under 35 U.S.C. § 101 as directed to non–statutory subject matter is proper.

The rejection of claims 1, 2, 4, 6, 8–10, 14, 15, 17, 19, 20, 23, 24, and 26 under 35 U.S.C. § 103(a) as unpatentable over Gross and Parsons is improper.

The rejection of claims 3, 5, 7, 16, and 18 under 35 U.S.C. § 103(a) as unpatentable over Gross, Parsons, and Chien is improper.

The rejection of claims 11–13, 21, 22 and 25 under 35 U.S.C. § 103(a) as unpatentable over Gross, Parsons, and Iyer is improper.

#### **NEW GROUND OF REJECTION**

The following new ground of rejection is entered pursuant to 37 C.F.R. § 41.50(b). Claims 14–22 are rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter. These claims are drawn to systems performing the steps recited in the method claims rejected under this statute. Although these claims nominally recite various types of processors, the types are no more than functional description shorthand for what each of the steps does, and do not otherwise recite specific structure.

As to such system claims, they

are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long "warn[ed] ... against" interpreting § 101 "in ways that make patent eligibility 'depend simply on the draftsman's art."

Alice Corp. Pty. Ltd. 134 S. Ct. at 2360.

## **DECISION**

The rejection of claims 1–13 and 23–26 is affirmed.

The rejection of claims 14–22 is reversed.

The following new ground of rejection is entered pursuant to 37 C.F.R. § 41.50(b). Claims 14–22 are rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter.

Our decision is not a final agency action.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Section 41.50(b) also provides:

When the Board enters such a non-final decision, the appellant, within two months from the date of the decision, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. The new ground of rejection is binding upon the examiner unless an amendment or new Evidence not previously of Record is made which, in the opinion of the examiner, overcomes the new ground of rejection

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designated in the decision. Should the examiner reject the claims, appellant may again appeal to the Board pursuant to this subpart.

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). See 37 C.F.R. § 1.136(a)(1)(iv) (2011).

<u>AFFIRMED-IN-PART; 37 C.F.R. § 41.50(b)</u>